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Coastal Zone Management

GENERAL OVERVIEW OF THE FARMLAND  
PRESERVATION EFFORT IN SOUTHERN  
MARYLAND

1989

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**GENERAL OVERVIEW OF THE FARMLAND PRESERVATION EFFORT  
IN SOUTHERN MARYLAND**

The purpose of this report is to illuminate the policy options that can help enhance present farmland preservation efforts. Included in this report is a cursory outline of the important aspects involved in this issue: This report describes the rationale for protecting farmland, the present threats, the mechanisms used to alleviate these threats, the effectiveness of the various mechanisms and finally, policy recommendations to enhance future farmland preservation efforts.

The rationale for preserving farm and forest land, upon closer inspection, reveals the diverse array of public benefits: To the general public, farmland preservation offers a unique rural way of life and associated cherished values. It assures fresh, high quality food at a reasonable cost at locations close to the consumer. It offers job opportunities, income and a market for production - promoting economic stability. It provides food and fiber both here and abroad. It assures reserve food production capacity for the area's future population. It promotes more efficient land use by channeling growth and development away from rural areas - protecting mineral resources and aquifer recharge areas. In this manner, wildlife habitat, open space and private outdoor recreational areas can be better maintained. Finally, air and water quality can be enhanced through the cleansing effect of soils, plants and trees.

There are also benefits to the farmer: Farmland preservation efforts enhance the economic viability of many farms through tax breaks and lump sum payments, which distinguish between agricultural and market land-value differences. It reduces conflict by separating incompatible uses between rural and developing areas. It helps keep prime farmland in production and

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helps maintain the critical mass of farms needed to support agribusiness, institutions and other farms. Farmland preservation also offers permanency to a rural life that can be handed from grandparent, to parent, to grandchild, relieving the pressure to sell out under the urban shadow.

Finally, there are benefits to the community: Farmland preservation helps contain urban sprawl by refocusing development back to areas where it belongs. This reduces unnecessary capital costs (extended roads, sewer and water), inefficient land use and the premature exhaustion of our non-renewable natural resources. Once agricultural land is broken into residential lots, it can never be reassembled.

Maryland has 6.4 million acres of land. According to the Maryland Department of State Planning, in 1981 665,000 acres were developed, 2.8 million acres were forested, 2.6 million were agricultural and the balance was wetland/barren. In the 70s, almost 10,000 acres were lost to development each year. Maryland lost 52,220 acres of farmland and 45,900 acres of forestland.

Between 1970 and 1980, the Maryland population experienced a 7.5% growth rate. The acreage covered by residential development, however, increased nearly three times as fast as population - 21.5%. Between 1986 and 2000 the population growth is expected to jump to 11.5%. If development and residential growth continues to double and triple (as it has in the past) we can expect to lose farmland at an alarming rate. Since 1982, agriculture and farming were no longer the dominant land uses in St. Mary's County.

The statewide loss of farmland is a serious concern for three reasons: First, farmland is a finite resource that competes with development. Once land has been converted to a developed use, it is permanently lost for use as a productive farm or forest land. Second, large masses of the State's prime agricultural land are threatened by encroaching low density residential

development, literally scattered throughout the region's rural areas. Finally, the density of acres being converted demonstrates inefficient use of the land. Too many farms are being consumed by two few households. Governmental costs for providing services to sprawled development are much higher than for compact, higher density development.

Alarming, farmland is being lost at a geometric rate (directly related to population growth) - Figure 1. In addition, we are converting land to development at a rate which is at least twice as necessary to accommodate growth. The trends is that many new homes are being occupied by younger, smaller households, who are leaving older urban areas to move to the suburbs. Adding insult to injury, 72% of all approved subdivision acreage in the State is located outside proposed water and sewerage areas, despite the availability of sufficient land. Forty-six percent of all new development acreage occurred in areas designated for rural, agricultural, conservation or similar purposes.

Ironically, the area planned for development by the year 2000 exceeds demand by over 500%. Large amounts of forest and farmland would be saved if more houses were developed inside service areas on smaller lots rather than outside on large lots. If all detached units occurred inside service areas, there would be a net savings of 90,000 acres. If just half the attached units were to occur inside service areas, there would be a net savings of 50,000 acres. This does not include the savings in additional capital costs (roads, sewer and water) needed to provide service to sprawled development, nor the cost of underutilized services (schools, police, etc.).

How can the erosion of prime farmland by low density urban sprawl be restrained? Generally, farmland protection measures fall into either incentive (carrot) or control (stick) programs. Early farmland protection programs were composed primarily of incentive mechanisms. Current programs

rely on more powerful land use control mechanisms or a combination of both. The incentive programs generally include Differential Tax Assessment and Agricultural Districting. Membership is voluntary. Differential Assessment provides tax relief to eligible farmland owners by assessing farmland on the basis of its agricultural use value rather than its higher market value. Farmers are thus given an economic incentive to keep their land in agricultural use for the specified amount of time.

Agricultural Districts, on the other hand, include only those farms or groups of farms (100 acre criteria) which meet soil and other physical qualifications. The direct benefits they receive include: differential tax assessment, immunity from nuisance complaints, free technical advise, assurance that their land will be preserved in an agricultural character and the opportunity to qualify for the State's competitive Purchase of Development Rights (PDR) program. This last item is an outright purchase of the farmer's right to develop his land and will be elaborated on later in this report. The most appealing aspect of Agricultural Districts is that they can protect large areas and prime farmland for long periods with limited funds. However, membership is voluntary, thereby difficult to obtain.

In addition to these incentives, there are various control mechanisms to help preserve farmland. These include Agricultural Zoning, Purchase of Development Rights (PRDs) and Transfer of Development Rights (TDRs). Agricultural Zoning is probably one of the most widely used methods of farmland preservation. An ordinance can either be non-exclusive or exclusive. Under a non-exclusive Agricultural Zoning ordinance, non-farm uses are allowed, but agricultural uses are preferred. This can take the form of large

minimum lot sizes or conditional standards. In contrast, exclusive Agricultural Zoning prohibits all non-farm uses in an area zoned for agricultural use.

Owning land is synonymous to owning a bundle of rights, which are separable. Under a PDR program a farmer teases away the right to develop his land and sells it, usually to the State. The farmer continues to possess all rights of ownership, except the right to develop which is locked in a covenant attached to the property. The State obtains money to buy these rights through a Transfer Tax which results when agricultural land is taken out of agricultural use and developed. This funding scheme provides program stability and long range planning.

Under a TDR program, two districts are designated: A "sending" district, where preservation is desired and a "receiving" district, where development is encouraged. This is similar to PDRs except that development rights are sold to the private sector on the open market rather than to the State. The farmland in the "sending" district is preserved in agricultural use by allowing farmers to sell their development rights to landowners in a "receiving" district. These additional rights allow the developer to build at densities higher than that permitted by zoning. The most appealing is that the costs of the program is borne by the private sector.

The most desirable technique of preserving farmland integrates the previously mentioned "carrot and stick" approaches into a comprehensive growth management strategy. It is believed that neither incentive nor land-use control programs can separately prevent farmland conversion, especially near cities. By embodying both mechanisms into a comprehensive growth management strategy, it is believed that they can more effectively deflect development

from farmlands, open areas and other environmentally sensitive areas to areas more suitable for development.

An article in "Sustaining Agricultural Near Cities" cites criteria for assessing the effectiveness of farmland preservation based on (1) cost, (2) complexity, (3) participation, (4) public support and (5) legal requirements. If the public costs of the program are high, it will be limited in its effectiveness. If it is complex it will incur administrative costs and be used only on a limited basis. The participation of the farmers and landowners is also important. Without a high level of participation, the program will be less effective. It is also essential to have the support of the general public, policymakers and legislators. Finally, the effectiveness of a program depends on its vulnerability to legal challenges. The more loopholes a program has, the less effective it will be.

Table 1 lists the positive and negative aspects of the various programs. Differential Assessment, generally, is not an effective program for reducing conversion of farmland, especially near urban areas where intense development pressure and capital gains from selling farmland exceed the tax incentives. It is a costly program because it reduces the property tax base (especially in developed areas) and usually ineffective because of its spotty voluntary nature. Public support generally varies inversely with cost and may be challenged if taxes are required to be imposed uniformly. Overall, the program is more effective in rural settings where the development pressures are less intense and long term contracts can be reached.

Ag-Districts are also only effective where development pressure is low or moderate. It exhibits many of the same limitations found in Differential Assessment. Overall, the program is implemented more often in areas where the development pressure is not high and the farmers intend to stay in farming.

In more urban areas, farmers are generally not willing to establish Ag-Districts because it would limit the land's development potential. Therefore, in areas experiencing more intense development pressures, more powerful control mechanisms are needed to protect farmland.

Agricultural Zoning is a simple, effective, low cost tool for farmland protection. participation is mandatory and landowners generally support the program where development pressures are very low. However, they strongly oppose the program in more urban areas because it reduces the value of the land by limiting its development potential. Overall, the public and legislators generally support the program because it is effective at containing urban sprawl (thereby promoting efficient land use) preserving open space and environmentally sensitive areas, and finally, it is one of the least costly programs for farmland preservation. However, it often finds itself as the focus of strong opposition. Overall, non-exclusive Ag-Zoning cannot be considered an effective tool against intensive development pressures primarily because it cannot successfully address the "Urban Shadow Effect" (gradual displacement of farming practices). Similarly, exclusive Ag-Zoning is ineffective because it focuses extreme opposition on itself from landowners who fear loss of equity to speculators or developers in the future. Although Ag-Zoning could be a very effective control mechanism, it is not politically feasible and should only be considered as a last straw.

This poses an interesting dilemma - what's worse? A voluntary program that's feasible but very costly and not very effective (Differential Taxation), Ag-Districting) or one that's very effective and affordable but entirely unfeasible (Ag-Zoning). An effective compromise would be one which offers strong incentives to enhance effectiveness and compensates landowners to foster political feasibility. Therefore, the success of a program

generally depends on how much money is willing to be spent. Two novel approaches are the PDR and TDR programs.

The PDR program is an abstract concept - the right to develop is purchased outright. A PDR program often entails high public cost when it is implemented near major urban areas and therefore requires great public support. Program financing is very important and is often the limiting component to its success. Two major strengths are that PDRs provide a permanent way of retaining farmland and that farmers find such programs attractive. Two major drawbacks are that participation is purely voluntary and that public cost is generally very high. Not enough money is being offered to draw farmers into the program. Historically, development rights in Calvert County require as much as \$2000 per acre. In Charles County at least \$1500 per acre is needed just to turn heads, yet the average acquisition cost in FY 1988 was only \$800 per acre. St. Mary's County gained three easements at a cost of \$552 per acre while Charles and Calvert counties were not able to acquire any.

An attractive means of significantly reducing the public cost of protecting farmland is incorporated in the TDR program. Although TDRs are also very costly, the private sector bears the public cost. Development rights are bought and sold in the private market. In this manner, the public cost of protecting farmland is internalized into the private market. The only real opposition to TDRs comes from people living in the "receiving" districts where densities are allowed to increase above the Status Quo. Therefore, TDRs need to be formulated and implemented under proper planning and market conditions. Overall, TDRs are better suited for built up areas where demand is strong relative to the supply of the development rights.

There they are - a wide variety of mechanisms which can be used to fit an even wider variety of situations. Integrating the various programs within the context of a carefully planned growth and development strategy meets aforementioned criteria of complexity cost, participation support, and legal challenge. Initially, a resource/market study would need to be conducted to prioritize sensitive/prime agricultural areas from more marginal ones, areas capable of supporting more intense growth and development, the degree of economic pressure between the areas and finally, the amount of public funds available to address this issue. With this information, an efficient farmland preservation strategy using a combination of the various mechanisms could be tailored to fit the existing needs.

For example: In low stress areas far removed from urban development, incentives would be effective. The public cost could be high if tax breaks are involved. However, if they were to be integrated in an efficient pattern of growth, millions of dollars in capital costs could be saved, thereby justifying the cost. Keeping this in mind, Ag-Districts can protect large areas for long periods of time, on limited funds and development rights in critical areas could be bought at rock-bottom prices. More intensely developed areas would require stronger control measures. PDRs concentrated on high priority lots would help reduce costs as long as TDRs were available to acquire the more marginal areas. The bulk of the cost would be shifted to the private sector. In extremely heavily developed areas, non exclusion (cluster type) zoning offers strong possibilities. Although this in itself can not restrain the "urban shadow effect" into our rural areas. It can make urban areas more pleasing by preserving open space.

Finally, despite its simplicity and low cost, the possibilities for exclusive Ag-Zoning are quite limited - especially where it has been as

soundly defeated as it has been here. Similarly, Large-Lot Zoning does little to enhance farmland preservation. In fact, various authors agree, large minimum lot sizes (ranging from 5 to 20 acres, even 40 acres) have the perverse effect of spreading very low urban densities outward and taking more land out of agricultural production than if minimum lot size restrictions were not in place at all.

In conclusion, the best strategy would be to design a program, given the necessary information, which reduces the economic pressure on the landowner and distributes the cost to the private sector in a simple, well liked legal manner that has as its underpinnings a framework of efficient growth and development. An integrated approach that uses the previously mentioned mechanisms in an efficient growth and development framework, best meets these criterion.

The final recommendations fall into either of two categories: Manage growth more efficiently, or step up present efforts. Combining these activities will help ensure that preservation goals are met.

#### **I. Manage Growth More Efficiently**

- An inventory of our resources is vital in assessing their importance, priority and changes - so that they may be managed more systematically. The SCS in Virginia presently has a LESA (Land Evaluation and Site Assessment System). Others use remote sensing. The newest trend in farmland mapping is GIS (Geographical Information Systems) which can display a wide variety of land use parameters/characteristics on a single map.
- Prime soils need to be identified and designated top priority. They can be included in Differential Assessment programs, serve as Ag-District

boundaries, become TDR "sending zones" or their development rights can be purchased outright.

- Preservation programs must be accompanied by a growth management strategy. This means directing growth where it is desirable and preventing it where it is not. Development must be located in/near areas designated specifically for growth and not allowed to spill over into prime farm/forest land.
- Conserve very large tracts of farm/forest lands. Once they begin to develop, economic and social forces make it more difficult for remaining farms to survive (Urban Shadow Effect) and they are forced to sell out. Once land is subdivided, it will never be farmland again.
- Open up non-productive agricultural soils before prime ones. Marginal farmland is better suited for development, which in turn alleviates the pressures on the more critical soils.
- Discourage medium or low density zoning (20 acre lots and less) since they only promote urban sprawl.

## II. Stepping Up Present Efforts

- In areas of higher development pressure, local government can be strengthened. This is both practical and cost effective. It helps assure that development is diverted to areas designated for it, ensuring efficient use of established/planned capital improvements.
- Critically sensitive areas can be the focus of more powerful State efforts. Easements can be targeted specifically.
- Invest now, save later. Anticipate future growth. Zone or acquire lands in low stress areas while it is relatively easy to do. Put land use controls in now before prices soar to \$7000 - even \$15,000 per acre.

The long term savings will exceed the short term costs.

- Increase payments for easements and/or lessen some of the legal requirements. This helps bring farmers into the program, fostering their mutual relationship with the State, which advertises the program to other farmers through word of mouth, which ultimately helps the program gain momentum.
- Increase funding: Seek authorization for a new bond issue, increase the real estate transfer tax by .1% (approximately \$5.5 million per year in 1983), increase the agricultural transfer tax from 5% to 10% (generating an additional \$3 million per year), increase local matching funds proportional to State increases, increase taxes on development in rural areas, and finally, repeal changes in federal tax laws that eliminate some of the advantages of selling development rights.
- Provide low interest loans to conservation trust, which can buy land, strip away the development rights and resell the agricultural land, minus a few select lots clustered on marginal soil, for a profit. This money could be used in future transactions.
- Mandate clustering of lots on land parcels: Developers get their way in numbers of lots and open space can be sold for agricultural use, which would otherwise lay fallow. Open space is preserved and the developer gets a return on his investment.
- Promote TDR programs. This has been successful in Carroll and Calvert counties. The most attractive feature is that the high cost of the program is borne by the private sector. This mechanism can be very effective in high pressure areas if participation and public support can be developed. Recommendations for a successful program include:

1. It needs a large-lot zoning in rural areas with at least 3 to 5 acre lots.
2. It needs a 3% growth rate (this tightens the amount of property available for development).
3. It cannot have residential upzoning. If a developer can get by with upzoning he is not going to become involved in the TDRs. An attractive by-produce of this is exhibited in Calvert County, which has had no rural land converted to residential in ten years. The citizens have helped tremendously.

- Increase public participation and support. Calvert County has gained great support for its program because it has bought the farmer into the initial design. This is accomplished by laying out all the options available to the farmer - both their positive and negative aspects. It is not unusual for the TDR program to be chosen based simply on its merits. Note that the program is much more attractive if the farmers discover this for themselves. If the program comes down from the top - it will not work. To promote the program, names and contacts in the community will need to be established. It takes a lot of citizen participation - which takes time. Calvert County has a farm bureau and neighborhood associations.

A survey conducted by the Tri-County Council indicates that the majority of the people in this area would like to see it remain rural in the next 20 years. They also feel that recreational areas, open space, forests, waterways, agricultural land and natural resources are either important or very important. They own their own home, are 26 years or older, make more than \$30,000 per year and have lived here longer than six years. In general,

these people care strongly about the quality of their area and want to keep it that way.

**TABLE 1**  
**A LIST OF THE VARIOUS FARMLAND PRESERVATION PROGRAMS**  
**THEIR CHARACTERISTICS**

	<u>Cost</u>	<u>Complexity</u>	<u>Member Participation</u>	<u>Public Support</u>	<u>Legal Challenge</u>
Tax Incentives	High <u>1/</u>	Simple	Medium <u>3/</u>	Varies <u>5/</u>	Tax Uniformity <u>6/</u>
Ag-Districts	High <u>1/</u>	Simple	Medium <u>3/</u>	Varies <u>5/</u>	Tax Uniformity <u>6/</u>
Ag-Zones	Low	Simple	Low <u>3/</u>	Good	Taking
PDRs	V.High	Moderate	Lacking <u>4/</u>	Varies <u>5/</u>	None
TDRs	V.High <u>2/</u>	Complex	Lacking	Lack Info.	None

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1/ Tax incentives reduce the tax base.

2/ The cost is borne by the private sector.

3/ Participation varies inversely with development pressure.

4/ The program lacks adequate funds.

5/ Support varies inversely with cost.

6/ Not applicable here.

Table 1 derived from an article published in "Sustaining Agriculture Near Cities."

# PRESERVATION VERSUS CONVERSION

FARMLAND IS LOSING GROUND TO DEVELOPMENT

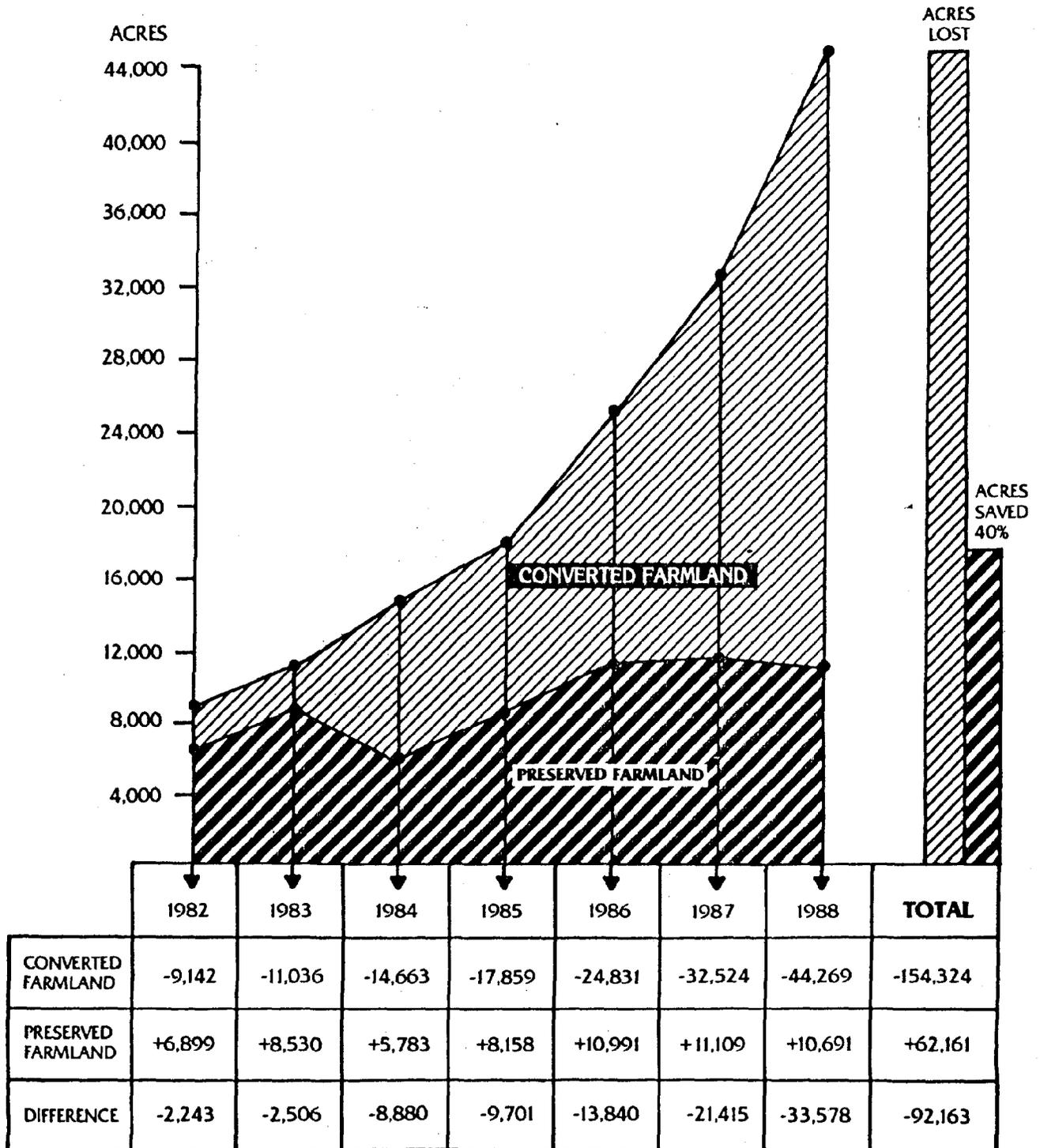


Figure 1 obtained from Maryland Ag-Land Preservation Foundation's 1988 Annual Report.

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